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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,830	08/12/2002	James C Sturm	7616/42/5	5608

7590 11/21/2003  
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EXAMINER

SANTIAGO, MARICELI

ART UNIT PAPER NUMBER

2879

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/089,830	STURM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mariceli Santiago	2879	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

The Amendment, filed on December 9, 2002, has been entered and acknowledged by the Examiner.

***Claim Objections***

Claims 4, 8, 12, 15 and 20 are objected to because of the following informalities:

Claims 4, 8, 12, 15 and 20 recite the limitation " a second transparent layer ". It is noted that the recitation is objectionable since there is no "first transparent layer" claimed in any of the preceding claims.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-5, 7-9, 11, 12, 15, 17, 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation " said conductive oxide layer " in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claims 1, 3-5, 7-9, 11, 12, 15, 17, 19 and 20 recite the limitation "assume a non-planar form", the term "assume" renders the claim indefinite since the meaning of the word, i.e., to pretend to be or form, does not clearly define the structure's feature claimed.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Isaka et al. (US 5,936,347).

Regarding claim 1, Isaka discloses a light emitting device (see Fig.5) comprising a transparent substrate (9) having a first surface (top of substrate 9) and a second surface (bottom of substrate 9), a conductive transparent layer (10) disposed on the first surface of the substrate (9), an organic layer (41) disposed on the conductive layer (10), and a top contact (6) disposed on the organic layer, wherein a contour of the second surface (bottom of substrate 9) of the substrate is caused to assume a non-planar form (41 in Figure 5, concave and convex surface, Column 8, lines 8-22) .

Regarding claim 2, Isaka discloses a light-emitting device wherein the non-planar form is spherical (Fig. 5, element 41).

Regarding claim 3, Isaka discloses a light-emitting device wherein the second surface contour is caused to assume a non-planar form by moulding the substrate surface (Column 8, lines 8-21).

Regarding claim 4, Isaka discloses a light emitting device wherein the second surface (bottom of substrate 9) contour is caused to assume a non-planar form by laminating a first surface of a second transparent layer having a non-planar second surface to the second surface of the substrate (Column 8, lines 8-21).

Regarding claim 5, Isaka discloses a method for increasing light emissivity for organic

light emitting diodes (OLED), wherein the OLED is disposed on a first surface of a transparent substrate, the method comprising the step of causing a second surface of the substrate to assume a non-planar form (Column 8, lines 8-21).

Regarding claim 6, Isaka discloses a method for increasing light emissivity for OLEDs wherein the non-planar form is spherical (Fig. 5, element 41).

Regarding claim 7, Isaka discloses a method for increasing light emissivity for OLEDs wherein the second surface (bottom of substrate 9) contour is caused to assume a non-planar form by moulding the substrate surface (Column 8, lines 8-21).

Regarding claim 8, Isaka discloses a method for increasing light emissivity for OLEDs wherein the second surface (bottom of substrate 9) contour is caused to assume a non-planar form by laminating a first surface of a second transparent layer having a non-planar second surface to the second surface of the substrate (Column 8, lines 8-21).

Regarding claim 9, Isaka discloses a method for constructing a light emitting device comprising the steps of providing a transparent substrate (9) having a first (top of substrate 9) and a second surface (bottom of substrate 9) of the substrate, depositing an OLED layer (12) on the conductive transparent layer (10), and causing a contour of the second surface (bottom of substrate 9) of the substrate to assume a non-planar form (Column 8, lines 8-21).

Regarding claim 10, Isaka discloses a method for constructing a light-emitting device wherein the non-planar form is spherical (Fig. 5, element 41).

Regarding claim 11, Isaka discloses a method for constructing a light emitting device wherein the second surface (bottom of substrate 9) contour is caused to assume a non-planar form by moulding the substrate surface (Column 8, lines 8-21).

Regarding claim 12, Isaka discloses a method for constructing a light emitting device wherein the second surface (bottom of substrate 9) contour is caused to assume a non-planar form laminating a first surface of a second transparent layer having a non-planar second surface

to the second surface of the substrate (Column 8, lines 8-21).

Regarding claim 13, Isaka discloses a light emitting device comprising a transparent substrate (9) having a first (top of substrate 9) and second surface (bottom of substrate 9), an OLED layer (12) disposed on the first surface (top of substrate 9) of the substrate, wherein the second surface (bottom of substrate 9) of the substrate is molded to a non-planar form (Column 8, lines 8-21).

Regarding claim 14, Isaka discloses a light-emitting device wherein the non-planar form is spherical (Fig. 5, element 41).

Regarding claim 15, Isaka discloses a light emitting device comprising a transparent substrate (9) having a first (top of substrate 9) and second surface (bottom of substrate 9), an OLED layer (12) disposed on the first surface (top of substrate 9) of the substrate, wherein the second surface (bottom of substrate 9) of the substrate is caused to assume a non-planar form by laminating a first surface of a second transparent layer having a non-planar second surface to the second surface of the substrate (Column 8, lines 8-21).

Regarding claim 16, Isaka discloses a light-emitting device wherein the non-planar form is spherical (Fig. 5, element 41).

Regarding claim 17, Isaka discloses a method for increasing light emissivity of a light emitting device, wherein the light emitting device includes at least two OLEDs (12) disposed on a first surface of a transparent substrate (9), the method comprising the step of causing a contour of selected portions of a second surface of the substrate to assume a non-planar form, the selected portions being selected to be optical alignment with the light output from ones of the at least two OLEDs (Column 8, lines 8-21).

Regarding claim 18, Isaka discloses a method for increasing light emissivity of a light-emitting device wherein the non-planar form is spherical (Fig. 5, element 41).

Regarding claim 19, Isaka discloses a method for increasing light emissivity of a light

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emitting device wherein the selected second surface contours are caused to assume a non-planar form by moulding the substrate surface (Column 8, lines 8-21).

Regarding claim 20, Isaka discloses a method for increasing light emissivity of a light emitting device wherein the selected second surface contours are caused to assume a non-planar form by laminating a first surface of a second transparent layer having a non-planar second surface to the second surface of the substrate (Column 8, lines 8-21).

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (703) 305-1083. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

*Mariceli Santiago* 11/14/03  
Mariceli Santiago  
Patent Examiner  
Art Unit 2879